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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,856	12/02/2003	Shiguang Yu	2664H-000059/US	3241
7590 08/24/2009				
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1618				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/725,856

**Applicant(s)**

YU ET AL.

**Examiner**

NABILA G. EBRAHIM

**Art Unit**

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-14, 37 and 39-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-14, 37 and 39-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The receipt of claims' amendments and Applicant's arguments dated 5/6/2009 is acknowledged.

**Status of Claims:**

Claims 5-14, 37 and 39-41 are pending in the application.

**Status of Office Action:** Final.

### ***Claim Rejections - 35 USC § 102***

In view of amending the claims, the rejection of claims 1-4, 10-12 and 37-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Morris et al. US publication 20010014442 is herein withdrawn.

In view of amending the claims the rejection of claims 1-2, 13-14, and 37-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Kempen US 6004614 is herein withdrawn.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Applicant cancelled claim 38. Consequently, the scope of the claimed invention excluded the weight reduction intent of the subject matter. Thus, Gerth, and Nagaoka that were relied upon to obviate the intended "weight reduction" and lowering tyrosine amount will be withdrawn from the current Office Action.***

1. Claims 1-14, 37 and 38 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al. US publication 20010014442 (Morris) in view Kempen US 6004614 (Kempen).

Morris teaches consumable food product utilized to maintain and restore hair color comprises a substrate and an effective amount of a directly available amino acid (in pure or

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diluted form) wherein the directly available amino acid is selected from the group consisting of tyrosine, phenylalanine and mixtures thereof (abstract). The effective amount of directly available tyrosine may be at least approximately 0.05% by weight of the diet [0019]. Also adding an effective amount (e.g., at least approximately 0.05% by weight, or at least approximately 0.1% by weight) of a directly available amino acid selected from the group consisting of tyrosine, phenylalanine and mixtures thereof or to an animal consumable product having indirectly available amino acids therein to produce a supplemented consumable [0021], it is noted that the range disclosed by Morris is overlapping with range required in instant claims 1-3. The composition is provided to animals such as e.g., a cat, a dog, or mink, etc. [0026]. The food can be gelatin based [0030, 0037, 0038, and 0041]. Morris also discloses that milk contains proteins supplying adequate amounts of phenylalanine and tyrosine for melanin synthesis [0047]. The animal food can be in a dry matter [0036, 0047]. Further, Morris discloses the use of fat, cellulose (fibers), carbohydrate (sucrose and starch), and protein in the animal food [abstract, and table 3].

Morris did not disclose the amounts recited in claims 5, 9 and new claims 39 and 40; however, animal foods ingredients such as proteins, carbohydrates, fats, and dietary fibers are conventional ingredients that are known to be used in different amounts and ranges.

Kempen teaches animal feed ingredients containing dicarboxylic acids. Three experiments were carried out to evaluate the effectiveness of adipic acid in animals weight gaining. One of the compositions used in the experiments comprises tyrosine in an amount of 0.15 (see table in col. 2). Kempen discloses the use of carbohydrate, protein and fat containing ingredients (see tables in columns 2 and 3). Note that once a method of using an ingredient is known it is within the skill of the skilled artisan to determine the optimum amounts to use and the optimum end points in using the ingredient.

New claims 39-40 would not differentiate the instant claims over the prior art because claim 39 has a range that was disclosed by Kempen while the percentage required by claim 40 would result from optimizing the amounts disclosed by either of Morris or Kempen.

The references do not specifically teach adding the ingredients in the exact amounts claimed by applicant. The amount of a specific ingredient in a composition is clearly a result of effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ at the time the invention was made. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient such as protein, carbohydrate, dietary fibers, fats, tyrosine and phenylalanine to add in order to best achieve the desired results in an animal feed especially that these ingredients are conventional and very well known to people having ordinary skill in the art. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of Applicants' invention.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al., in view of Kempen et al. and further in view of Arthur Maurice Mark US 2,178,210 ('210).

Morris and Kempen have been relied upon for the reasons set forth hereinabove.

Neither of the references teaches the source of tyrosine required by claim 40.

'210 teaches isolation of tyrosine from corn gluten (title).

Thus, it was obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the tyrosine disclosed by either Morris or Kempen from corn gluten source because it was known in the art for long years that corn grains contains tyrosine. The artisan would find it obvious to optimize the amounts of the different ingredients used in the

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composition to produce an animal feed and would expect success to make a composition containing protein, fat, carbohydrate, fiber, tyrosine and phenylalanine.

***Response to Arguments***

2. Applicant's arguments filed 5/6/2009 have been fully considered but they are not persuasive.

- Applicant argues that Morris discloses tyrosine and phenylalanine are used for maintaining desirable hair coloration and reversing undesirable discoloration.

This was not found persuasive because in light of the new amendments to the claim the claims recite a composition that can be used as an animal feed. However, no specific effect of this composition was recited in the instant claims. Thus, Morris's composition maintaining the hair coloration of an animal reads on the instant claims.

- Morris teaches away because the reference teaches that "it is noted that since phenylalanine can supply all the tyrosine that animals, such as rats need phenylalanine is regarded as an essential amino acid and tyrosine a dispensable amino acid.

- This was not found persuasive because Applicant uses a sentence cut from a paragraph that conveys a different meaning. The paragraph states that:

Hair color changes of animals, cats in particular, have been induced by using pure amino acid diets by adjusting the amount of phenylalanine and tyrosine in the diet. Also, it has been shown that supplementing a gelatin-based diet with tyrosine (or sufficiently high levels of phenylalanine) can prevent the hair color changes from occurring. It is noted that since phenylalanine can supply all the tyrosine that animals, such as rats need, phenylalanine is regarded as an essential amino acid and tyrosine a dispensable amino acid. Thus, in light of the current subject invention, at least in cats, it appears that at certain dietary concentrations of phenylalanine and tyrosine growth and apparent health are satisfactory, but there can be insufficient tyrosine for optimal or normal melanin synthesis and the hair of these cats contains lower levels of melanin than cats with sufficient tyrosine. The color alteration is most easily seen in black cats, but present for all colorations.

Thus, Morris was referring to the effect of the two amino acids in regard to hair color in some animals and stated that in other animals it is essential to form melanin.

- Applicant argues that Morris disclosure of the amount of tyrosine is not sufficiently overlapping with the range recited in claim 1.

**To respond:** the range taught by Morris overlaps with the range recited by the instant claims.

Claim 1 recites a range which does not exceed 0.4%. Morris disclosed a range of at least approximately 0.05% by weight, or at least approximately 0.1%, accordingly, the two ranges are overlapping. Further, the argument renders moot in view of relying upon Kempen.

- The present invention aims to a new application for animal feeds, including, but not limited to, feeds for farm animals such as fish, poultry, swine, and cattle. Thus, Kempen encompasses compositions including dicarboxylic acids.

To respond: it is not clear what is applicant arguing; Kempen uses dicarboxylic acids and tyrosine in an animal feed. The disclosure teaches the use of the composition for farm animals such as fish, poultry, swine, and cattle. These limitations are required by the instant claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NABILA G. EBRAHIM whose telephone number is (571)272-8151. The examiner can normally be reached on 9:00AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nabila G Ebrahim/  
Examiner, Art Unit 1618

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